



Research Article



The Effect of Empathy-Enhancing Techniques on EFL Learners' Empathy, Language Proficiency, and Perception of Classroom Activities

Masoume Karimian* 

Department of English Language, Imam Reza International University, Mashhad, Iran

* **Corresponding author:** Masoume Karimian, Department of English Language, Imam Reza International University, Mashhad, Iran. Email: massikarimims@gmail.com

ARTICLE INFO

Article History:

Received: 05/08/2022

Accepted: 07/09/2022



Keywords:

Emotional empathy

Empathy

Perception of classroom activities

Teaching approaches

ABSTRACT

Introduction: Learning English as a foreign language has been affected by new teaching approaches in the field of teaching. There is a keen shift from studying teachers' teaching to learners' learning and learners' psychological and social factors. Therefore, the current study aimed to examine the impact of empathy-enhancing techniques on EFL learners' language proficiency, perception of classroom activities, and empathy.

Methodology: To do so, three main variables were measured among 60 participants, divided into two groups of control and experimental. The Empathy Formative Questionnaire, Students' Perceptions of Classroom Activities' Scale, and Nelson English Language Test were utilized in order to evaluate students' level of empathy, perceptions of classroom activities (interest, challenge, joy, and choice), and measure learners' proficiency in both experimental and control groups. Unlike the control group, the experimental group was subjected to empathy-based tasks and activities.

Results: The obtained result indicated that empathy-enhancing techniques had a positive and significant effect on learners' empathy and language achievement but not on perception.

Conclusion: Therefore, it can be suggested that enhancing empathy in learners and concentration on emotion positively affects language learning and diminishes recklessness.

1. Introduction

The cognitive processes in humans are significantly influenced by emotions. Emotions have a strong impact on learning, memory, reasoning, perception, attention, and problem-solving. They can adjust the selectivity of attention, motivate action and behavior, and play a crucial role in the functioning of the human brain (Johnson et al., 2014; Tyng et al., 2017). Emotion, thought, and motivation are interconnected in a dynamic system where the components correlate organically and nonlinearly (Mercer, 2011).

Learning itself is a powerful process that combines both emotion and cognition (Lewis, 2005). There is a well-supported belief that emotions and feelings are closely tied to learning and understanding (Mortiboys, 2005). The motivational and attentional aspects of emotion contribute to enhanced learning and memory, and paying attention to emotions can lead to accurate and vivid recollections over time (Seli et al., 2016). Therefore, emotions in education

have been identified as a noticeable determinant of students' learning and achievement (Hascher, 2010; Gläser-Zikuda et al., 2013).

When learning a second language (L2), students often experience intense emotions as they encounter unfamiliar information such as grammar, writing, vocabulary, culture, and reading conventions, which might be greatly different from those to which they are accustomed to. These expectations can evoke various emotions in language learners, which in turn affect their ability to effectively deal with challenges in L2 learning (Dewaele et al., 2019; Oxford, 2016; Shao et al., 2020). Positive emotions widen L2 learners' mind, thinking, and attention, leading to exploration and play, new learning, and new experiences (MacIntyre & Gregersen, 2012). Increasing positive emotion results in increased self-assurance, self-determination, positive relationships, vitality, resilience, and optimism in

language learners (Seligman, 2011). On the other hand, negative emotions may have a detrimental effect on second/foreign language acquisition (Méndez López & Aguilar, 2012). Negative emotions reduce the individual's reaction to survival behaviors (Seligman, 2011). Some of the narrowing emotions were investigated through language acquisition, such as unwillingness to interact with others (MacIntyre, 2002), lack of self-confidence, lowered personal control (Dewaele, 2007), and language anxiety (Seligman, 2006; 2011). Due to negative emotions, many language learners feel negative about their learning, which causes language anxiety. Therefore, language learning can be very emotional (Plonsky et al., 2022). As respect to emotional rules and expression in each culture is reflected by their own internal norms and values, it should be analyzed how emotional rules can be challenged and how emotions can be "reclaimed" as part of individuals' cognitive and ethical inquiry.

The Emotion-Based Language Instruction (EBLI) model is a new approach to bilingual education that concentrates on the importance of emotions in language learning. The EBLI model draws on the under-researched developmental, individual-difference, relationship-based model of language acquisition (Wang & Jiang, 2022). The EBLI model focuses on emotioncy, emotionalization, and inter-emotionality (Wang & Jiang, 2022). It is suggested by EBLI model that language educators should give a sharp focus on developing learners' emotional intelligence by helping them use emotions to enhance learning, recognize and regulate their emotions, and build positive relationships with others (Wei et al., 2021). As a result of recognizing, using, and regulating emotions, enhancing learning and building positive relationships with others can be perceived in learners. Therefore, while empathy-based instruction may not be a specific approach to language learning, emotion-based instruction can help learners develop empathy by recognizing and regulating their emotions and building positive relationships with others (Shao et al., 2020).

Empathy is regarded as a fundamental aspect of social cognition that enables humans to comprehend and respond appropriately to the emotions of others (Wambsganss et al., 2022). It involves the capacity to understand and empathize with the perspectives and feelings of others. In a world devoid of empathy, a lack of understanding and consideration for others' viewpoints would be a significant problem that could arise in society. Therefore, empathy plays a crucial role in fostering a meaningful life characterized by compassion and social awareness (Cairns et al., 2021; Horwitz et al., 1986). In line with the pedagogical implications of increasing students' positive feelings in their classrooms (Dorniyé & Otto, 1998), for the purposes of this paper, empathy is accepted as contributing to foreign language learners achievement (Wang, 2005). According to Brown (1973), empathetic qualities were assumed effective in the classroom as they embody features, such as interpersonal skills and eagerness to foster the point of view of a person of a different background.

Another factor affecting learners' positive feelings is

their positive attitude toward learning. Classroom atmosphere is a notable initial factor in understanding attitudes and beliefs. A common target for managing classrooms in classroom-based programs is to boost positive student behavior (Epstein et al., 2008), which possibly improves students' perceptions of the classroom. Innovative classrooms and active learning environments have been shown to positively impact student engagement and motivation (Woo et al., 2022). Student perceptions of the classroom teaching environment can be used as an instructional feedback tool to guide core instruction. This feedback can help teachers identify areas for improvement and make changes to improve student learning experiences (Nelson et al., 2015).

All the above studies proved the significant role of these variables in language learning; however, the impact of empathy on proficiency and perception of the classroom has received scant attention. Therefore, the current study aimed to answer the following research question:

1. Does teaching empathy technique influence Iranian English language learners' achievement in an experimental group?
2. Does raised empathy make any significant difference between the control and Experimental group with respect to their perception of their classroom activities?

2. Methodology

2.1. Participants

The participants of the present study comprised 50 students aged 14-18 years, 25 of whom were in the control group, and the rest formed an experimental group in an English language institute in Mashhad, Iran. The learners were Iranian girls at the pre-intermediate level, who were learning English as a foreign language. The mother tongue of all participants was Persian.

2.2. Instruments

Three instruments used in this study included Nelson English Language test to measure learners' proficiency, an empathy formative questionnaire to assess the level of empathy, and a perception questionnaire to assess students' perception of classroom activities. In addition, Empathy Mapping was utilized to analyze individuals' contemplation.

2.2.1. Empathy formative questionnaire

The Empathy Formative Questionnaire (Gaumer Erickson et al., 2017) was utilized to evaluate learners' empathy. This test was valid and reliable, with estimated Cronbach's coefficient alpha of .812. The Empathy Formative Questionnaire contains 15 items with five-point Likert choices aiming to measure five different subscales of empathy, namely cognitive empathy, empathetic reflection, emotional empathy, empathetic conjecture, and empathetic question.

2.2.2. Students' perceptions of classroom activities

To resolve learners' perceptions of classroom activities, the translated version of the Students Perceptions of Classroom Activities scale, expanded and validated by Gentry and Gable (2001), was employed by the researcher. It was translated in to Persian and validated by Ghanizadeh and Jahedizadeh (2015). The Cronbach's alpha ranges from .71 to .80 (interest = .86, challenge= .73, choice= .71, joy= .79).

Students Perceptions of Classroom Activities scale includes 31 statements evaluating four aspects (challenge, interest, joy, and choice). A 5-point Likert-type response format (never, seldom, sometimes, often, and always) determines the four aspects of the instrument.

2.2.3. Nelson English language test

This test was selected among 40 separate tests in different levels, from beginners to advanced. The levels are numbered 050, 100, 150 up to 500, and there are three various books, including elementary, intermediate, and advanced, with Teacher's book containing notes and answers. The presented language test is a Quick Check Placement Test, which was chosen through elementary level (050) that is basically according to the language knowledge of participants in the study. It contains 50 items in multiple-choice format. Participants were supposed to do the test in 50 minutes and choose the correct response to check their grammatical and lexical knowledge.

2.2.4. Empathy techniques

2.2.4.1. Empathy mapping technique

In the empathy mapping technique, learners are supposed to make a map and focus on what is thought, said, felt, and done by others. Then, their reflection on the situation is analyzed by teacher. This technique is an extremely strong one to seek the understanding of links between words, actions, thoughts, and emotions. This technique not only prepares a way for learners to think deeply, but also assists them to easily arrange their ideas, dig up new ideas and soothe the thinking process. As a result, this strategy could be helpful in speaking more effectively to show the reaction (Murley, 2007). Therefore, mind mapping can engage to generate ideas, and draw them on the paper, and it can improve the oral expression of thinking and feeling (Murley, 2007). It can be effective in improving speaking ability and expanding vocabulary knowledge, as students try to speak in a cohesive, organized way and pay more attention to select more appropriate words to speak with their partner during pair work activities. Empathy mapping was designed according to mind mapping as students utilize a map-like mind map to reflect their thoughts and emotions and then discuss them ([Appendix A](#)).

2.2.4.2. Listening fully

Listening fully trains the learners ready to listen

carefully to others and try to understand them. Through this technique, different dimensions of empathy like reflecting, legitimizing, understanding, partnership, and supporting statements are taught. Through this technique, learners learn when to listen and when to give feedback. Good listening can be both spontaneous and disciplined. Responses cannot be planned in advance, and learners have to listen very carefully to any comment and question and then select an appropriate expression that serves the best way to achieve goals (Mortiboys, 2005). Listening carefully is a mandatory skill to show people are responding to others' emotions. How individuals listen has a dramatic impact on your job and relationship with others. In this way, individuals try to hear the words said by others and the complete message being communicated (Mind Tools, 2021). A sample is presented in [Appendix B](#).

2.2.4.3. Self-disclosure technique

Self-disclosure technique considers the teacher as an experienced person in a spot and students guess the topic and debate it by listening to the teacher. Narratives used in the classroom often contain an instructor's personal stories and story-like accounts of others' experiences and legends (Downs et al., 1988). It is an alternative way to discuss the topic rather than express the topic directly. Students listen to their teacher who is talking about a personal experience. A funny situation is that s/he made a mistake and made her feel embarrassed. Students ask their teacher some questions for more details. They try to brainstorm some words about their teacher's feelings at that time and choose the best title for her story ([Appendix C](#)). After reading a story in the book it is their turn to talk with their friends about their personal experiences and their feelings at that time.

2.2.4.5. Our judgments are no facts

In this step, learners learn a technique to control their thoughts and pay more attention to things by focusing their thoughts and not wasting their energy thinking about things that make them feel down. This technique is very helpful in keeping a distance from judgment and thoughts and monitoring feelings and ways of thinking. After doing their tasks, students think and reply to some questions about their feelings by controlling their annoying thoughts. They explain what they are keeping away, and they are asked to use this strategy in daily life to feel better.

This challenge is to be aware of thoughts and judgments to see them clearly and decide whether to act or not (Rutsch, 2013).

2.2.4.6. Walk the line technique

Through walk the line technique, a masking line is placed on the floor, and students divide it in half and stand on each side of the line. Learners walk into the class to answer some questions according to some guidelines on the floor, and the

teacher reads a series of questions from less to more personal. If students can answer yes to questions, they silently approach the line and stop. After 5 seconds of silent reflection, students return to their positions and listen to the teacher for more questions. After listening to the questions, students sit down, and they can reflect on what they have heard by speaking and writing. It is an activity to build empathy and understanding through movement and reflection. As a follow-up, students can write a letter to a classmate whom they moved on one of the same prompts, and share more about the particular experience (Fitzmuarice, 2017).

2.2.4.7. Amazing empathy race

In amazing empathy race, students receive some clues about staff members or their classmates, and if they guess correctly who the clue is about, they go toward that person to start an interview about personal wishes, and dreams. They have to listen with compassion. This kind of activity improves learners' listening ability and enhances their understanding of what they hear and see. It is a scavenger hunt-like experience to better understand each other, build empathy, and create new connections (Jones, 2017).

2.2.4.8. Understanding the story

The presented designed task, named understanding the story, is about understanding the story of another person. In the groups, students should think about a person whom they do not want to be friends with and give their reasons. They are supposed to write why that person behaves negatively, and group members share their feelings about that person after analyzing and realizing the negative behavior of that person. As a post-discussion exercise, students can discuss the way this exercise has changed their mind about someone they do not want to be friends with or are afraid of ([Appendix D](#)).

2.3. Procedure

To begin the study, valid questionnaires were prepared to measure empathy, perception, and proficiency in participants. To ensure homogeneity in empathy level, Empathy Formative Questionnaire was used. Besides, the translated transcription of the Students Perceptions of Classroom Activities test was replied to by participants. Additionally, to measure the level of proficiency of learners, a Nelson placement test was utilized. The researcher explained the goal of taking these standardized tests and asked participants to mention their age with no name but some codes instead to recognize the effect of treatments by taking post-tests. The data were collected in a semester. Utilizing these questionnaires enabled the researcher to analyze the participants' level of empathy, proficiency, and class perception at the beginning of the study and before the treatments. Another part of this step was prompt

recognition of some emotional sides of the Touch Stone book 1 that should have been chosen to seek reconciliation with the second curriculum and preparing some tasks and techniques to enhance empathy in the experimental group.

As the experimental group led to improve empathy, to deal with this conception, teaching English was followed with the accompaniment of teaching some techniques to enhance empathy in learners.

There were two syllabi in the experimental class; one was prepared to teach English, and the teacher provided the other to enhance empathy. This syllabus provided some exercises and techniques to improve some traits in learners, and some methods, such as empathy mapping, self-disclosure technique, listening fully, our judgments are not fact, walk the line, and amazing empathy race, were used to improve empathy. These tasks were not only designed to raise empathy, but also involved students in more class activities to check whether their perception increased.

Designing some appropriate tasks related to each lesson by the researcher was a main part of the experimental group syllabus. Some tasks were in listening parts, some reading, speaking, and even writing. Thinking more deeply, listening actively, speaking and getting others feeling better were the aims of these tasks in the experimental group. According to (Mortiboys, 2005; Rodgers, 1983), showing empathy in the classroom would bring change to learners and can be effective in the climate of learning.

2.4. Data analysis

After collecting data by spreading three sets of formative questionnaires among two groups, the collected data were analyzed to determine any significant relationship among the variables. In order to data analysis, the significant relationship of empathy-enhancing techniques with proficiency, empathy, and perception of the classroom activities were considered before and after treatments. A MANOVA was run to check if the variables are correlated and also to find any difference between the mean value of the pre-test and post-test, and independent and paired samples t-tests were conducted. The paired samples t-test, sometimes called the dependent samples t-test, is a statistical procedure used to determine whether the mean difference between two sets of observations is zero. In a paired sample t-test, each subject or entity is measured twice (as in the case of pre-test and post-test).

3. Results

As can be observed, the data obtained from the two groups at the beginning of the study could be considered normal. Accordingly, parametric tests can be employed to compare the scores obtained by these two groups to investigate if there is any significant difference. As can be seen in [Table 1.](#), although the mean score of the empathy questionnaire was higher in the experimental group, compared to the control group, this difference was

Table 1.*Independent Samples T-test of Empathy Formative Questionnaire for Control and Experimental Groups at the Beginning of the Study*

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Experimental	Equal variances assumed	2.60	.113	1.68	44	.099	3.67	2.18	-0.72	8.07
	Equal variances not assumed			1.72	43.5	.090	3.67	2.18	-0.61	7.96

not significant. Therefore, the two groups of the experimental and control had the same level of empathy at the beginning of the study.

3.1. Students' perceptions of classroom activities

Regarding students' perceptions of classroom activities, it can be seen that this challenge had the highest mean score in the experimental and control groups at the beginning of the study. Moreover, choice and joy had the lowest mean scores in the experimental and control groups, respectively (Table 2).

To investigate the significant difference between the two groups in terms of their perceptions toward classroom activities, a set of independent samples t-tests was performed.

As can be seen in Table 2., there was no significant difference between the control and experimental group regarding their perception of different classroom activities. In each category, p value less than .05 was considered

statistically significant.

3.2. After the treatment

3.2.1. Comparing students' performances in the control and experimental groups regarding language proficiency

As shown in Table 3., there was no significant difference between the mean score of the control group on the pre-test and post-test ($p > .05$). This means that the traditional approach to teaching the English language could not significantly enhance EFL learners' proficiency.

In order to probe the possible effect of empathy-based instruction on students' proficiency, the mean scores of the pre-test and post-test of the experimental group were compared through a paired samples t-test (Table 4). The findings indicated that the mean score of this group on the post-test was significantly higher than their mean score on the pre-test ($p < .05$). It is likely that employing

Table 2.*Independent Samples Test of Students' Perceptions of Classroom Activities for Control and Experimental Groups at the Beginning of the Study*

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
interest	Equal variances assumed	1.027	.316	2.026	44	.049	1.91619	.94599	.009	3.82272
	Equal variances not assumed			2.084	43.055	.043	1.91619	.91956	.061	3.77060
challenge	Equal variances assumed	1.519	.224	1.533	44	.132	1.84000	1.20019	-.578	4.25882
	Equal variances not assumed			1.595	40.786	.119	1.84000	1.15383	-.490	4.17057
choice	Equal variances assumed	.407	.527	1.125	44	.267	.99619	.88518	-.787	2.78016
	Equal variances not assumed			1.148	43.875	.257	.99619	.86741	-.752	2.74448
joy	Equal variances assumed	.036	.850	.875	44	.386	.85905	.98124	-1.118	2.83661
	Equal variances not assumed			.882	43.641	.382	.85905	.97363	-1.103	2.82173

Table 3.*Paired Sample Statistics of the Proficiency Pre-test and Post-test Taken by the Control Group*

Paired Differences								
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
				Lower	Upper			
pre – post test	.56	6.47482	1.29496	-2.11268	3.23268	.432	24	.669

Table 4.*Paired Samples Statistics of the Proficiency Pre-test and Post-test Taken by the Experimental Group*

Paired Samples Statistics of the Proficiency Pre-test and Post-test Taken by the Experimental Group								
	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
pre - post	-4.85714	4.11443	.89784	-6.73001	-2.98427	-5.410	20	.000

Table 5.*Paired Samples Statistics of the Empathy Formative Questionnaire for the Control Group before and after the Study*

Paired Differences								
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
				Lower	Upper			
pre - post	-.320	7.706707	1.541341	-3.501172	2.86172	-2.42	24	.837

empathy-based instruction could enhance learners' performances on the proficiency post-test in the experimental group.

3.2.2. Comparing students' performances on empathy formative questionnaire in the experimental and control groups

Regarding learners' performance on the empathy questionnaire, learners' mean score in the experimental group was higher than that of the control. To see if this difference was significant, inferential statistics were used.

Table 5 presents the paired samples statistics of the Empathy Formative Questionnaire before and after the instruction in the control groups. As can be seen, the traditional method of teaching did not have any effect on learners' level of empathy ($p > .05$).

Running another t-test indicated that empathy-based

instruction could positively improve learners' level of empathy. As Table 6 indicates, the mean score of this group at the end of the study was significantly higher than their mean score at the beginning of the study ($p < .05$).

Finally, an independent samples t-test was used to see if there was a significant difference between the mean scores of the experimental and control groups regarding their level of empathy at the end of the study. As Table 7 shows, learners' level of empathy was significantly higher in the experimental group compared to their counterparts in the control group ($p < .05$). It is likely that employing empathy-based instruction not only improves learners' level of empathy but also enhances their language proficiency.

The next table presents the results of Multivariate Tests. The p-value was not statistically significant and thus, it can be concluded that empathy did have a significant effect on the subscales of classroom activities in the control group (Table 8).

Table 6.*Paired Samples Statistics of the Empathy Formative Questionnaire for the Experimental Group before and after the Study*

Paired Differences								
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
				Lower	Upper			
pre-post	-7.71	7.17	1.56470	-10.97820	-4.45	-4.930	20	.000

Table 7.*Independent Samples Test of the Empathy Formative Questionnaire for Experimental and Control Groups at the End of the Study*

		Independent Samples Test								
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Empathy	Equal variances assumed	5.520	.023	-8.61	44	.000	-16.18	1.87	-19.97	-12.39
	Equal variances not assumed			-8.87	42.69	.000	-16.18286	1.82264	-19.85	-12.5

Table 8.*Multivariate Tests Results for Control Group in Interest, Challenge, Choice, and Joy regarding Empathy Scores*

Effect		Value	F	Error df	Sig.	Partial Eta Squared
Cempathy	Pillai's Trace	.417	1.317	40	.263	.208
	Wilks' Lambda	.616	1.301 ^b	38	.272	.215
	Hotelling's Trace	.569	1.280	36	.284	.221
	Roy's Largest Root	.449	2.246 ^c	20	.100	.310

Table 9.*Multivariate Tests Results for Experimental Group in Interest, Challenge, Choice, and Joy regarding Empathy Scores*

		Multivariate Tests					
Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Empathy	Pillai's Trace	.627	1.826	8.000	32.000	.108	.313
	Wilks' Lambda	.450	1.840 ^b	8.000	30.000	.108	.329
	Hotelling's Trace	1.051	1.839	8.000	28.000	.111	.344
	Roy's Largest Root	.850	3.399 ^c	4.000	16.000	.034	.459

To examine the possible difference among the learners in the experimental group having different levels of empathy in terms of their scores on the four subscales of interest, challenge, choice, and joy comprising students' perceptions of classroom activities, a MANOVA was run (Table 9). It is worth noting that in order to facilitate the process of doing statistical analysis, students' empathy scores were divided into three categories ranging from 61-73 (group C), 52-61 (group B), and 38-52 (group A). The findings indicated that EFL learners in the experimental group who scored the least in empathy had a higher level of interest. Similar to their counterparts in the control groups, students in group A had higher levels of challenge, choice, and joy. This means that although classroom activities seem to be more challenging for experimental students who gain low scores on the empathy test, they enjoy the class more than their counterparts and find more choices in classroom activities. Moreover, the p-value is not statistically significant except for Roy's Largest Root, meaning that empathy did have a significant effect on the subscales of classroom activities in the experimental group.

4. Discussion

In order to figure out the significant relationship between enhancing empathy and participants' proficiency, learners took Nelson test in two different steps of pre-test and post-test, in experimental and controlled groups. Both groups were homogeneous at the beginning of the study. The final results showed that proficiency among the experimental group improved significantly due to the techniques being taught to this group. There was a significant relationship between enhancing empathy techniques and proficiency in the experimental group. It is likely that the empathy-based syllabus in the experimental group not only improved empathy but also enhanced language proficiency in language learners. However, the traditional instruction had no effect on the outcomes of the control group. The obtained results revealed that, unlike the case of the control group, in which there was no significant relationship between empathy level and proficiency score, there was a significant relationship between all subscales of empathy and proficiency in the experimental group. In other words, the results appeared to manifest that the performance of language learners in this study was directly affected by empathy. Utilizing some techniques to improve the empathy in participants affected their class activity in the experimental group. It was shown that the empathy level raised in learners and their proficiency enhanced through

these techniques.

When students are engaged in learning circumstances, simulation techniques are frequently used to develop empathetic behaviors and empathy. In simulation-based education, professional education contains various approaches, such as role-playing, games, and virtual reality, in which students learn to act empathetic (Bearman et al., 2015). That is why Mortiboys (2005) emphasizes the relationship between teachers and learners and believes a well-developed self-awareness is the first step in being emotionally intelligent, which is the first effect on students and colors their view of their classroom environment. The collection of emotions an individual feels influences the way s/he learns. In a learning state, the learner experiences feelings that are more conducive to learning. Therefore, empathy helps individuals understand their own feelings and the feelings of others and propels the relationships in a better way, so it makes the learners trust their feelings and affects their performance. The findings are in line with other studies, which confirmed that raised empathy could have a positive influence on students' performance (Elliot et al., 2011).

It means that the higher the level of empathy, the higher the proficiency score would be. As Guiora et al. (1972) reported, the capacity to pick a new language correlates with empathic capacity. Consequently, there was a significant relationship between the raised level of empathy in the experimental group and their language proficiency score. The second objective of this study was to figure out the relationship between enhancing empathy and its effect on raising the perception of classroom activity in language learners that was put into question. Espelage et al. (2009) noted that the positive classroom atmosphere and a positive feeling in general counteract with lower peer relationships and understanding them. Gardner (1993) was also of the opinion that empathy can create a calm and friendly classroom atmosphere. However, the results indicated that empathy had no significant effects on the subscales of classroom activities in the experimental group. In other words, it was found that perception and its subscales, including interest, challenge, choice, and joy, were unrelated to enhancing empathy.

As the focus of this research was on raising empathy and checking whether it affects the interaction of proficiency and perception of class activities, the obtained results indicated that students with higher levels of interest had the lowest level of empathy. Although the class activities were more challenging, their level of empathy was low. According to the findings, there was no significant relationship between raising empathy and perception of classroom activities. This absence of any relationship between these

variables and findings showed that this finding is not in line with other studies.

5. Conclusion

The present study provided in-depth information seeking the effect of empathy-enhancing techniques on EFL learners' empathy, language proficiency, and perception of classroom activities. The present study was not without limitations, which could be taken into account in future research by including a larger number of participants. Since this study was conducted only on high school language learners studying at language institutes, further studies can investigate and compare the results for university students. Furthermore, gender could be analyzed as another factor in studies that are replicated in the future.

Declarations

Competing interest

The authors declare that there is no conflict of interest regarding the publication of this article.

Funding

The authors acknowledge that this study received no funding.

Availability of data and materials

All data are available per request.

Ethical considerations

The author has checked the manuscript for all ethical issues, including plagiarism, the double submission, and the originality of the presentation.

Acknowledgments

The author would like to thank all the participants who took part in the study.

References

- Bearman, N., Palermo, C., Allen, L. M., & Williams, B. (2015). Learning empathy through simulation: A systematic literature review. *Simulation in Healthcare*, 10, 308-319. <https://doi.org/10.1097/SIH.0000000000000113>
- Brown, H. D. (1973). Affective variables in second language acquisition. *Language Learning*, 23(2), 231-244. <https://doi.org/10.1111/j.1467-1770.1973.tb00658.x>
- Cairns, P., Pinker, I., Ward, A., Watson, E., & Laidlaw, A. (2021). Empathy maps in communication skills training. *The Clinical Teacher*, 18, 142-146. <https://doi.org/10.1111/tct.13270>
- Dewaele, J. M. (2007). The effect of multilingualism, sociobiographical, and situational factors on communicative anxiety and foreign language anxiety of mature language learners. *International Journal of Bilingualism*, 11(4), 391-409. <https://doi.org/10.1177/13670069070110040301>
- Dewaele, J. M., Chen, X., Padilla, A. M., & Lake, J. (2019). The flowering of positive psychology in foreign/second language teaching and acquisition research. *Frontiers in Psychology*, 10, 2128. <https://doi.org/10.3389/fpsyg.2019.02128>
- Dornyei, Z., & Otto, I. (1998). Motivation in action: A process model of L2 motivation. *Working Papers in Applied Linguistics*, 4, 43-69.
- Downs, V. C., Javidi, M. M., & Nussbaum, F. (1988). An analysis of teachers' verbal communication within the college classroom: Use of humor, self-disclosure, and narratives. *Communication Education*, 37(2), 127-141. <https://doi.org/10.1080/03634528809378710>
- Epstein, M., Atkins, M., Cullinan, D., Kutash, K., & Weaver, R. (2008). Reducing behavior problems in the elementary school classroom. *IES Practice Guide*, 20(8), 12-22.
- Gardner, H. (1993). *Multiple intelligences: The theory in practice*. Basic Books.
- Gaumer Erickson, A. S., Noonan, P. N., Brussow, J., & Carter, K. S. (2017). Measuring the quality of professional development training. *Professional Development in Education*, 43(4), 685-688. <https://doi.org/10.1080/19415257.2016.1179665>
- Gentry, M., & Gable, R. K. (2001). From the student's perspective—my class activities: An instrument for use in research and evaluation. *Journal for the Education of the Gifted*, 24(4), 322-343. <https://doi.org/10.1177/016235320102400403>
- Ghanizadeh, A., & Jahedizadeh, S. (2015). An exploration of EFL learners' perceptions of classroom activities and their achievement goal orientations. *Journal of Research Studies in Education*, 4(3), 33-45. http://consortiacademia.org/wp-content/uploads/IJRSE/IJRSE_v4i3/1032-3745-1-PB.pdf
- Gläser-Zikuda, M., Seidel, T., & Rohlf, C. (2013). Mixed methods in empirical educational research. BoD - Books on Demand.
- Hascher, T. (2010). Learning and emotion: Perspectives for theory and research. *European Educational Research Journal*, 9(1), 13-28. <https://journals.sagepub.com/doi/pdf/10.2304/eej.2010.9.1.13>
- Horwitz, E. K., Horwitz, M. B., & Cope, J. (1986). Foreign Language Classroom Anxiety. *The Modern Language Journal*, 70(2), 125-132. <https://doi.org/10.2307/327317>
- Johnson, D. W., Johnson, R. T., & Smith, K. A. (2014). Cooperative learning: Improving university instruction by basing practice on validated theory. *Journal on Excellence in University Teaching*, 25(4):1-26. <https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=7c9b52ff69f3b8c3a5968c5eb70fcdad11eb2f>
- Lewis, M. (2005). Bridging emotion theory and neurobiology through dynamic systems modeling. *Behavior and Brain Science*, 28, 169-194. <https://doi.org/10.1017/S0140525X0500004X>
- MacIntyre, P. D. (2002). Motivation, anxiety, and emotion in second language acquisition. In P. Robinson (Ed.), *Individual differences and instructed language learning* (pp. 45-68). John Benjamins. http://faculty.capebretonu.ca/pmacintyre/research_pages/journals/motivation_chapter_2002.pdf
- MacIntyre, P., & Gregersen, T. (2012). Emotions that facilitate language learning: The positive- broadening power of the imagination. *Studies in Second Language Learning and Teaching*, 2, 193-213. <https://www.cceol.com/search/article-detail?id=72835>
- Elliot, R., Bohart, A. C., Watson, J. C., & Greenberg, L. S. (2011). Empathy. *Psychotherapy*, 48(1), 43-49. <https://psycnet.apa.org/doi/10.1037/a0022187>
- Espelage, D. L., Mayberry, M. L., & Koenig, B. (2009). Multilevel modeling of direct effects and interactions of peers, parents, school, and community influences on adolescent substance use. *Youth Adolescence*, 38, 1038-1049. <https://link.springer.com/article/10.1007/s10964-009-9425-9>
- Fitzmarice, L. (2017). Walk the line. In *Empathy in your classroom*. The teachers' guild. Retrieved from <https://www.oakland.edu/Assets/Oakland/galileo/files-and-documents/Empathy%20in%20Your%20Classroom%20Teachers%20Guild.pdf>
- Guiora, A. Z., & Schonberger, R. (1990). Native pronunciation of bilinguals. In Leather, J. & James, A. (Eds.), *New sounds 90: Proceedings of the Amsterdam Symposium on the Acquisition of Second-Language Speech* (pp. 26-36). University of Amsterdam.
- Jones, D. (2017). Amazing empathy race. In *Empathy in your classroom*. The teachers' guild. Retrieved from <https://www.oakland.edu/Assets/Oakland/galileo/files-and-documents/Empathy%20in%20Your%20Classroom%20Teachers%20Guild.pdf>
- Méndez López, M. G., & Aguilar, A. P. (2012). Emotions as learning enhancers of foreign language learning motivation. *Profile Issues in Teachers Professional Development*, 15(1), 109-124.

- <http://www.scielo.org.co/pdf/prf/v15n1/v15n1a08.pdf>
- Mercer, S. (2011). The self as a complex dynamic system. *Studies in Second Language Learning and Teaching*, 1, 57-82. <https://www.cceol.com/search/article-detail?id=261697>
- Mind Tools. (2021, June 12). Improve your listening skills with active listening. Mind tools club. [video file]. Retrieved from: <https://youtu.be/t2z9mdX1j4A>
- Mortiboys, A. (2005). *Teaching with emotional intelligence: A step-by-step guide for higher and further education professionals*. Routledge.
- Murley, D. (2007). Technology for everyone: Mind mapping complex information. *Law Library Journal*, 99, 175-183. <https://heinonline.org/HOL/LandingPage?handle=hein.journals/lj99&div=14&id=&page=>
- Nelson, P. M., Ysseldyke, J. E., & Christ, T. J. (2015). Student perceptions of the classroom environment: Actionable feedback to guide core instruction. *Assessment for Effective Intervention*, 41(1), 16-27. <https://doi.org/10.1177/1534508415581366>
- Oxford, R. L. (2016). 2 Toward a psychology of well-being for language learners: The 'EMPATHICS' vision. In P. D. MacIntyre, T. Gregersen & S. Mercer (Eds.), *Positive psychology in SLA* (pp. 10-88). Multilingual Matters. <https://doi.org/10.21832/9781783095360-003>
- Plonsky, L., Sudina, E., & Teimouri, Y. (2022). Language learning and emotion. *Language Teaching*, 55(3), 346-362. <https://doi.org/10.1017/S0261444821000434>
- Rodgers, M. A. J. (1983). Solvent-induced deactivation of singlet oxygen: Additivity relationships in nonaromatic solvents. *Journal of the American Chemical Society*, 105(20), 6201-6205. <https://doi.org/10.1021/ja00358a001>
- Rutsch, E. (2013). *Increasing empathy. Manual empathy training*. The Center for Building a Culture of Empathy and Compassion <http://cultureofempathy.com/References/Experts/Others/Files/Marieke-Kingma-Empathy-Training-Manual.pdf>
- Seli, P., Wammes, J. D., Risko, E. F., & Smilek, D. (2016). On the relation between motivation and retention in educational contexts: The role of intentional and unintentional mind wandering. *Psychonomic Bulletin & Review*, 23, 1280-1287. Available at: <https://link.springer.com/article/10.3758/s13423-015-0979-0>
- Seligman, M. E. (2006). *Learned optimism: How to change your mind and your life*. Vintage.
- Seligman, M. E. (2011). *Flourish: A visionary new understanding of happiness and well-being*. Simon and Schuster.
- Shao, K., Nicholson, L. J., Kutuk, G., & Lei, F. (2020). Emotions and instructed language learning: Proposing a second language emotions and positive psychology model. *Frontiers in Psychology*, 11: 2142. <https://doi.org/10.3389/fpsyg.2020.02142>
- Tyng, C. M., Amin, H. U., Saad, M. N. M., & Malik, A. S. (2017). The influences of emotion on learning and memory. *Frontiers in Psychology*, 8: 1454. <https://doi.org/10.3389/fpsyg.2017.01454>
- Wambsganss, T., Söllner, M., Koedinger, K., & Leimeister, J. M. (2022). *Adaptive empathy learning support in peer review scenarios*. ACM CHI Conference on Human Factors in Computing Systems. New Orleans, Louisiana, USA. <https://ssrn.com/abstract=4050531>
- Wang, N. (2005). EFL teachers' mindfulness and emotion regulation in language context. *Frontiers in Psychology*, 13, 877108. <https://doi.org/10.3389/fpsyg.2022.877108>
- Wang, Q., & Jiang, Y. (2022). A positive psychology perspective on positive emotion and foreign language enjoyment among Chinese as a second language learners attending virtual online classes in the emergency remote teaching context amid the COVID-19 pandemic. *Frontiers in Psychology*, 12: 798650. <https://doi.org/10.3389/fpsyg.2021.798650>
- Wei, M., Wang, L. f., & Kivlighan, D. M. Jr. (2021). Group counseling change process: An adaptive spiral among positive emotions, positive relations, and emotional cultivation/regulation. *Journal of Counseling Psychology*, 68(6), 730-745. <https://psycnet.apa.org/doi/10.1037/cou0000550>
- Woo, C. W. I., Whitfield, T. S., Britt, L. L., & Ball, T. C. (2022). Students' perception of the classroom environment: A comparison between innovative and traditional classrooms. *Journal of the Scholarship of Teaching and Learning*, 22(1), 31-17. <https://files.eric.ed.gov/fulltext/EJ1336482.pdf>

Appendix A.

Empathy mid mapping sample used in the class.

Empathy Mapping: What do others think, feel, say and do?	
<p><i>"The great gift of human beings is that we have the power of empathy, we can all sense a mysterious connection to each other." –Meryl Streep</i></p> <p>A student leader is like a wildlife biologist. Biologists observe animals to understand how they live and how humans can help them, not endanger them. In order to serve our school, you need to similarly understand the people who make up the school. A student leader must be a keen observer. When you take the time to watch, listen and decide how you can help, our school becomes more successful.</p> <p>Empathy Mapping Individually reflect on the group you are analyzing and provide answers in the following quadrants for the group you are analyzing. When finished with individual reflection, work as a group to create a composite Empathy Map to present to the class. This could take the form of the quadrant below or could be expanded into a creative presentation.</p>	
<p>Think: What do _____ think about school?</p>	<p>Think: What do _____ say at school?</p>
<p>Think: How do _____ feel at school?</p>	<p>Think: What do _____ do at school?</p>
<p>Reflection To better understand and serve this group at our school, we as student leaders could...</p>	

Appendix B.

A sample of listening fully activity

Talk with your friends about the time you were busy.

Ask and answer:

- ✓ How did you manage your time?
- ✓ Could you do all your plans on that day?
- ✓ Did you get nervous?
- ✓ Explain if you faced any problem.
- ✓ give some advice to your friend to manage time in a better way.

**** listen to your friends carefully and report her problem to other groups. Ask them for reaction and more ideas.**



Appendix C.

A sample of self-disclosure technique

Lesson D

A funny thing happened . . .

1 Reading

- A** Do you ever read the letters people send in to magazines? What topics do people write about? Add ideas.

problems, funny stories . . .

- B** Read the story from a magazine. What kind of story is it? What happened to Sarah?

Reading tip

As you read a story, stop at the end of each paragraph. Can you guess what happens next?

Our community:

This week – funny stories from our readers

How embarrassing!

By Sarah Morgan

A funny thing happened to me yesterday after work. I was really hungry and I didn't feel like making dinner, so I went to a fast-food place near my office building. I got a cheeseburger, some fries, and a soda. The restaurant was really crowded, so I had to share a table. I sat down with my tray across from a young guy. I said, "Hi. Is this seat free?" He nodded and smiled, but he didn't say anything. He seemed pretty nice.

Anyway, I got out a magazine and started eating my burger. It was a really interesting article and I couldn't stop reading. But then I saw the guy take one of my fries! I couldn't believe it, but I was too embarrassed to say anything. Then he took another one, and I still didn't say anything!

Then I thought, "Those are my fries." So I took a handful and ate them. The guy looked at me in a funny way, but he didn't say anything. Then he did it again and ate another one of my fries! It was really strange.

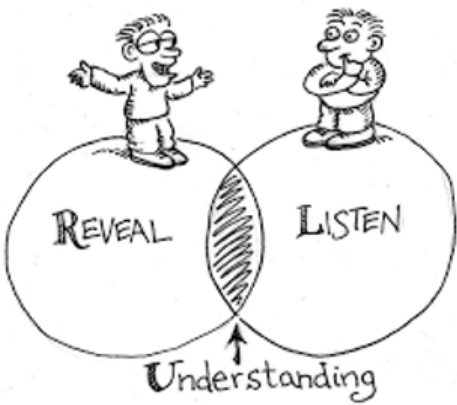
Finally, a few minutes later, he got up, took his tray, and left. That's when I realized the fries were on his tray! And my fries? They were under my magazine. How embarrassing! I ran out into the street. There was the guy.



Continued on next page . . .

Appendix D.

A sample of understanding the story

	<ul style="list-style-type: none">• Think about someone you do not like to make friends with. Talk to your friends about the reason.• Your friends are going to take note, then talk about their emotions to that person and his/ her negative behavior.
---	---